



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,851	10/22/2003	Risto Mononen	60091-00247	4224

32294 7590 03/08/2007  
SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER
----------

TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
----------	--------------

2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/689,851

Applicant(s)

MONONEN ET AL.

Examiner

Thanhnga B. Truong

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Thanhnga B. Truong  
AU2135

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/10/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to the communication filed on October 22, 2003. Claims 1-30 are pending. At this time, claims 1-30 are rejected.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed on March 10, 2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-12, 17-18, and 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Leung (US 6,760,444 B1).

a. *Referring to claim 1:*

i. Leung teaches a method for performing an address update in a communication system, the method comprising the steps of:

(1) indicating that an address update process needs to be performed, wherein location-related information about a mobile node is transmitted to a correspondent node of the mobile node if the address update process is performed (column 2, lines 10-30 of Leung);

(2) in response to the indicating step, authenticating the correspondent node, the authenticating step yielding identity information about the correspondent node **(column 2, lines 47-57 of Leung)**;

(3) based on the identity information, determining whether the address update process is to be carried out; and performing the address update process when the determining step indicates that the address update process is to be carried out and omitting the address update process when the determining step indicates that the address update process is not to be carried out **(column 2, lines 10-30 of Leung. Furthermore, if the negotiation is not successfully completed, the update will not take place).**

b. Referring to claim 2:

i. Leung further teaches:

(1) wherein the performing step performs the address update for optimizing routing between the mobile node and the correspondent node **(column 2, lines 10-30 of Leung).**

c. Referring to claim 3:

i. Leung further teaches:

(1) further comprising a step of storing security policy data in the mobile node, the security policy data indicating a set of trusted parties **(column 2, line 64 through column 3, line 16; column 4, lines 28-31 of Leung).**

d. Referring to claim 4:

i. Leung further teaches:

(1) wherein the determining step comprises comparing the identity information with the security policy data stored in the mobile node **(column 3, lines 33-44 of Leung).**

e. Referring to claim 5:

i. Leung further teaches:

(1) wherein the performing step is carried out in response to the comparing step when the comparing step indicates that the correspondent node belongs to the set of trusted parties **(column 3, lines 33-44 of Leung).**

f. Referring to claim 6:

i. Leung further teaches:

(1) wherein the determining step comprises prompting a user of the mobile node to make a decision when the comparing step indicates that the correspondent node fails to belong to the set of trusted parties, wherein the prompting step comprises informing the user about the identity information (**column 4, lines 32-56 of Leung**).

g. Referring to claim 7:

i. Leung further teaches:

(1) wherein the indicating step comprises indicating that the address update process comprises a binding update process according to a Mobile IP protocol (**column 1, line 50 through column 2, line 20 of Leung**).

h. Referring to claim 8:

i. Leung further teaches:

(1) wherein the indicating step is performed in response to a predetermined event (**column 1, line 50 through column 2, line 20 of Leung**).

i. Referring to claim 9:

i. Leung further teaches:

(1) wherein the indicating step comprises responding to the predetermined event comprising reception of a packet routed via a home agent of the mobile node (**column 2, lines 21-46; column 5, lines 6-13 of Leung**).

j. Referring to claim 10:

i. Leung further teaches:

(1) wherein the indicating step comprises responding to the predetermined event comprising reception of a new address for the mobile node (**column 2, lines 21-46 of Leung**).

k. Referring to claim 11:

i. Leung further teaches:

(1) wherein the storing step comprises storing the security policy data comprising high-level identifiers of trusted correspondent nodes **(column 2, line 64 through column 3, line 16; column 4, lines 28-31 of Leung)**..

l. Referring to claim 12:

i. Leung further teaches:

(1) wherein the storing step comprises storing the security policy data comprising rules for deciding whether the identity information represents a trusted correspondent node **(column 3, lines 45-65 of Leung)**.

m. Referring to claim 17:

i. This claim consist a mobile node for a communication system to implement a method of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

n. Referring to claim 18:

i. This claim has limitations that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

o. Referring to claim 21:

i. Leung further teaches:

(1) wherein the determining means comprise a security policy database, the determination means being configured to determine, by means of the security policy database, whether the address update means can be activated without consulting a user of the mobile node **(column 4, line 65 through column 5, line 4 of Leung)**.

p. Referring to claim 22:

i. This claim has limitations that is similar to those of claim 6, thus it is rejected with the same rationale applied against claim 6 above.

q. Referring to claim 23:

i. This claim has limitations that is similar to those of claim 11, thus it is rejected with the same rationale applied against claim 11 above.

r. Referring to claim 24:

Art Unit: 2135

i. This claim has limitations that is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

s. Referring to claim 25:

i. This claim has limitations that is similar to those of claim 12, thus it is rejected with the same rationale applied against claim 12 above.

t. Referring to claim 26:

i. This claim consist a system for performing an address update in a communication system to implement a method of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

u. Referring to claims 27 and 28:

i. Leung further teaches:

(1) wherein the authentication means are located in the mobile node or in a home agent of the mobile node (**column 5, lines 15-21 of Leung**).

v. Referring to claim 29:

i. Leung further teaches:

(1) wherein the address update means are located in a home agent of the mobile node (**column 2, lines 10-20 of Leung**).

w. Referring to claim 30:

i. Leung further teaches:

(1) wherein the determination means are located in the home agent of the mobile node (**column 2, lines 10-20 of Leung**).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2135

7. Claims 13-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 6,760,444 B1), and further in view of Gehrmann (US 6,912,657 B2).

a. Referring to claim 13:

i. Although Leung teaches the authentication the correspondent node as shown in Figure 1 and column 5, lines 15-30, Leung is silent on the capability of using the certificate-based authentication protocol. On the other hand, Gehrmann teaches:

(1) wherein the authenticating step comprises authenticating the correspondent node by means of a certificate-based authentication protocol (**column 2, lines 19-23 of Gehrmann**).

ii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Leung with the teaching of Gehrmann for establishing a security association in an ad hoc network (**column 1, lines 9-10 of Gehrmann**).

iii. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Leung with the teaching of Gehrmann to secure and protect the mobile IP network technology (**column 1, lines 7-8 of Leung**).

b. Referring to claim 14:

i. The combination of teaching between Leung and Gehrmann teaches a method for performing an address update in a communication system. Gehrmann further teaches:

(1) wherein the authenticating step comprises authenticating by means of the certificate-based authentication protocol comprising an Internet Key Exchange protocol (**column 1, line 36; column 7, line 3 of Gehrmann**).

c. Referring to claim 15:



i. The combination of teaching between Leung and Gehrman teaches a method for performing an address update in a communication system. Gehrman further teaches:

(1) wherein the authenticating step comprises authenticating by means of the certificate-based authentication protocol comprising a Transport Layer Security protocol (**column 7, line 2 of Gehrman**).

d. Referring to claim 16:

i. The combination of teaching between Leung and Gehrman teaches a method for performing an address update in a communication system. Gehrman further teaches:

(1) wherein the authenticating step comprises authenticating by means of the authenticating step comprising certifying the identity information cryptographically (**column 6, lines 30-45 of Gehrman**).

e. Referring to claim 19:

i. This claim has limitations that is similar to those of claim 13, thus it is rejected with the same rationale applied against claim 13 above.

8. Claim 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 6,760,444 B1), and further in view of Forslow (US 6,954,790 B2).

a. Referring to claim 20:

i. Although Leung teaches the authentication the correspondent node as shown in Figure 1 and column 5, lines 15-30, Leung is silent on the capability of using the Domain Name System-based protocol. On the other hand, Forslow teaches:

(1) wherein the authentication means comprise a Domain Name System-based protocol for obtaining the identity information (**column 1, lines 66-67 of Forslow**).

ii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Leung with the teaching of Forslow for establishing a security association.

Art Unit: 2135

iii. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Leung with the teaching of Forslow to secure and protect the mobile IP network technology (**column 1, lines 7-8 of Leung**).

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Korus et al (US 7,023,828 B2) discloses a method and apparatus for a mobile node to maintain location privacy from selected correspondent nodes (see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

*Thanhnga B. Truong*  
AU 2135

TBT

March 4, 2007